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ABSTRACT

West Virginia received two grants from the U.S. Department of Education to encourage disadvantaged youth to have high expectations, stay in school, and take academically rigorous courses to prepare for college. A total of 17 counties were served by these grants. As part of the program, surveys were completed by 3,716 students in 54 middle and junior high schools to gather baseline data on seventh-grade students' and parents' aspirations for students' postsecondary education. Of the students surveyed, 1,218 were classified as nonrural and 2,498 as rural. Findings indicate that families of nonrural students had a greater propensity toward and history of postsecondary education. Nonrural students participated more in clubs, while rural students participated more in sports. Nonrural students seemed more confident of their academic abilities than rural students. Nonrural students more often indicated that a parent helped them with homework, while rural students more often indicated that a classmate or friend helped them. Rural students were more likely to get information related to postsecondary education from a principal or guidance counselor and to discuss college entrance requirements, indicating that rural students were making plans for postsecondary education. However, students often failed to follow through on these ambitions. (Contains 16 references, 10 tables, and 2 figures.) (TD)

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Comparison of Nonrural Versus Rural Middle-School Students' Academic Aspirations

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INTRODUCTION

GEAR UP Description

In August 1999, President Clinton announced $120 million in GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) grants to 21 states and 164 partnerships of colleges and middle schools across the country (Office of the Press Secretary, 1999). Another $45 million in new grants were awarded in 2000 to 7 states and 73 partnerships (Office of the Press Secretary, 2000). These U.S. Department of Education-funded grants were to encourage disadvantaged youth to have high expectations, stay in school, and take academically rigorous courses to prepare them for college. See Table 1 for descriptive information about the GEAR UP program.

The U.S. Department of Education awarded a five-year partnership grant to Fairmont State College in 1999 to serve students in nine north central West Virginia counties. In 2000, the Department awarded a five-year partnership grant to the West Virginia Department of Education (WVDE) to serve students in eight southern West Virginia counties. The grants initially fund academic and support services for seventh-grade students and their parents in the participating counties and follow those students through the following four years. In addition, a new pool of seventh graders is added each successive year. By the end of the funding cycle, the majority of the high school population would have participated in GEAR UP directly or at least benefitted indirectly from the overflow effect of having a GEAR UP presence in each middle and high school. At that point, core elements of GEAR UP will have been institutionalized and systemic and environmental changes implemented in all middle and high schools within the counties.

For the Fairmont grant, collaborating agencies include nine county boards of education (Barbour, Doddridge, Harrison, Marion, Monongalia, Preston, Randolph, Taylor, and Tucker) and a number of state, business, and organizational partners. For the WVDE grant, collaborating agencies include eight county boards of education (Clay, Hampshire, Lincoln, Mason, McDowell, Monroe, Pocahontas, and Roane) and a number of state, higher education, business, and organizational partners.

Table 1: GEAR UP Program Description

GEAR UP differs from other federal programs in that it . . .
★ begins no later than the seventh grade to help ensure that students take appropriate college preparatory courses and follows them through high school
★ transforms schools by working with entire grades of students (cohort or whole-grade approach) to provide a comprehensive array of services including mentoring, tutoring, counseling, strengthening the curriculum, professional development for teachers and staff, parent involvement, after-school programs, summer academic and enrichment programs, and college visits
★ leverages local resources by encouraging colleges to partner with low-income middle schools and leverages nonfederal resources with a 1-for-1 match requirement
★ provides college scholarships and 21st Century Scholar Certificates (early notification of students' eligibility for financial aid)
★ bolsters state efforts by supporting early college preparation programs
(Office of the Press Secretary, 1999)

Purpose of Study

As part of their scopes of work in the GEAR UP grants, Fairmont State College and WVDE staff contracted with AEL to design, administer, and analyze student and parent surveys to gather baseline information on incoming seventh-grade students' and parents' awareness of, interest in, and aspirations for students' postsecondary education. For reports on these yearly baseline analyses for Fairmont, see Cowley, 2000 and 2001; for WVDE, see Howley and Cowley, 2001.

The purpose of this study was to examine whether students' responses on the two baseline surveys differed based on the demographic variable of rurality. Survey items included the affective, behavioral, and cognitive domains, as well as demographic data. The affective area includes items related to students' attitudes and aspirations, the behavioral area includes items related to their skills, and the cognitive area related to their achievements and beliefs. Demographic items included gender, age, ethnicity, number of brothers and sisters, and number of people living at home.

For this analysis, the National Center for Education Statistics (2002) Johnson locale codes for individual schools were utilized to define *rural* schools (locale codes 7 and 8) and classifications other than rural (locale codes 1 through 6), which were grouped together to form the category of *nonrural* schools. For a summary of the Johnson locale code information for the 54 middle schools included in this analysis (29 for Fairmont, 25 for WVDE), see Table 2. Further, all 55 of West Virginia's counties have been classified as *Appalachia* by the Appalachian Regional Commission (2000).

Table 2: Johnson Locale Codes per School by Grant

Fairmont State College GEAR UP Grant			WV Department of Education GEAR UP Grant		
Johnson Code	Schools: Number	Percent	Johnson Code	Schools: Number	Percent
7: Rural outside MSA	21	72%	7: Rural outside MSA	23	92%
6: Small town	7	24%	6: Small town	2	8%
5: Large town	1	3%	5: Large town	0	—

Review of Literature

Student aspirations extend far beyond individual dreams or ambitions. Aspirations encompass individual and family educational goals, career choices, and self-concept. Quaglia and Perry (1993, p. 2) define aspirations as being composed of two components: inspiration and ambitions. "*Ambitions* represents an individual's ability to look ahead and invest in the future. *Inspiration* can be described as the individual's ability to invest the time, energy, and effort presently to reach their ambitions." (For a historical perspective on the aspirations construct, see Quaglia and Cobb's 1996 "Toward a Theory of Student Aspirations," *Journal of Research in Rural Education, 12*[3], 127-132.)

Researchers at the University of Maine's National Center for Student Aspirations have identified eight conditions that support high levels of aspirations in youth: achievement, belonging, curiosity, empowerment, excitement, mentoring, risk taking, and self-confidence (Plucker & Quaglia, 1998). The authors state that these conditions "provide an interpretive template that frames how students can be viewed and how schools can positively support . . . the development of student aspirations" (p. 253). Further research at the University's College of Education and Human Development resulted in modifications to the eight factors related to student aspirations. These eight conditions, which "emphasize the importance of putting the students at the center of any school initiative or program" (University of Maine, 1999, p. 1), include:

- **Belonging:** A relationship between two or more individuals characterized by a sense of connection, support, and community.
- **Heroes:** People whom children admire and imitate because of their personal talents.
- **Sense of Accomplishment:** In addition to academic success, recognizes effort, perseverance, and citizenship as important signs of children's success.
- **Fun and Excitement:** Involves being interested in something, being emotionally involved, or having an intense experience or desire of some kind.
- **Spirit of Adventure:** Characterized as a child's ability to take on positive, healthy challenges.
- **Curiosity and Creativity:** Characterized as inquisitiveness, eagerness, a strong desire to learn new or interesting things, and a desire to satisfy the mind with new discoveries.
- **Leadership and Responsibility:** Children's sense of control and responsibility for their actions and words.
- **Confidence to Take Action:** The extent to which children believe in themselves and is related to self-regard, self-esteem, self-worth, and self-respect.

Adolescence is characterized by emotional, physical, cognitive, and social transformations. As patterns of thoughts or choices emerge, youth begin to gain a picture of "who they are," which is essential for school to have meaning and purpose. Schools can help facilitate that transformation

by providing an environment conducive for students to learn how to usefully and productively manage their time, energy, and efforts in ways that are meaningful to them for the future and yet enjoyable to them in the present (Quaglia & Perry, 1993). Educators can try to influence aspirations with inspiration, realism, and respect (Sizer, 1996). Schools can achieve this, according to Sizer, by attracting "interesting" staff with aspirations of their own, keeping schools small to allow more than casual interactions, making time for students to pursue interests, providing "aspirer" models from the community, and being flexible. He notes, "Expect every youngster to have a worthy passion of some sort. Work at it, make it a priority, speak about it, make exceptions for it" (p. 126). Quaglia and Cobb (1996) state that youth are pressured toward uniformity by social groups and suggest that schools combat this mind-set by fostering an environment that encourages diversity, excellence, and risk taking among students.

Cobb, McIntire, and Pratt (as cited in Quaglia & Perry, 1993) report that rural youth believe that their parents are more supportive of them taking full-time jobs, attending vocational schools, or joining the service rather than going to college. In addition, Walberg and Greenberg (1996) note that rural youth also face economic decline, limited work opportunities, and increased isolation. Yet youth are a rural community's greatest asset. When youth migrate from their hometowns, rural communities suffer a loss of talent and vitality crucial to the development or maintenance of a desirable future for these communities (Ley, Nelson, & Beltyukova, 1996). Factors affecting out-migration include limited economic opportunities, lack of faith in a community to sustain favorable economic conditions, and a willingness of rural youth to look elsewhere. All of these, combined with overall lower aspirations for postsecondary education, make it more difficult for rural youth to achieve career and economic success within West Virginia.

Howley, Harmon, and Leopold (1996) note that educators and community leaders believe that rural youth are becoming less involved in their hometown communities—this disengagement may reinforce students' inclination to migrate elsewhere. The trick is to encourage and facilitate the development of rural students' aspirations and, at the same time, transform local communities into appealing places where young adults can prosper and grow while contributing to the quality of rural life.

According to Kampits (1996), rural youth have significantly higher graduation rates from high school than urban youth, yet they are less likely to pursue college degrees and are less likely to graduate from high school with firm plans for the future. In addition, low-income youth are less likely than more affluent youth to enroll in more demanding college-preparatory courses. She challenges educators to focus on the needs of the students:

> Regardless of high expectations—even regulations—that students will learn and demonstrate specific knowledge and understanding, first they must want to learn, be inspired to learn, and understand why they should learn. In short, they must be full partners, not just subjects, in the learning process. (Kampits, 1996, p. 176)

METHODS

Instrumentation

In July 2000, AEL staff revised the student and parent surveys based on data obtained from the first-year surveys used with the Fairmont grant. Such revisions included clarifying item stems and response options and adding more selected-response options from the most-frequently mentioned open-ended comments.

AEL/FSC student survey. This survey was developed by Fairmont and AEL staff and contained 64 items utilizing a variety of response options, mainly selected-response with only minimal open-ended items (for "other" descriptions). Students were asked demographic questions related to their families; questions about job aspirations and current classes; and yes/no questions about school participation, computer usage, and plans for taking specific courses in the future. Students were asked to rate their level of agreement (*Strongly Disagree* to *Strongly Agree*) for 10 items related to current perceptions and plans for life after high school. And, per a recommendation from the first-year Fairmont report, 28 items from the University of Maine's *Students Speak* survey were added to capture data on the eight components related to aspirations (belonging, heroes, sense of accomplishment, fun and excitement, spirit of adventure, curiosity and creativity, leadership and responsibility, and confidence to take action) (University of Maine, 1999). Students were asked to rate their level of agreement (*Strongly Disagree* to *Strongly Agree*) for these 28 items. For analysis purposes, the eight components formed eight separate subscales. Since the number of items per subscale differed, subscale means (total subscale score divided by number of items in subscale) were used for subscale comparisons.

Federal student survey. This survey, drafted by the U.S. Department of Education and redesigned by AEL staff, contained 27 items utilizing a variety of response options, mainly selected-response with only minimal open-ended items (for "other" descriptions). Students were asked to respond to items pertaining to school and school work, plans for the future, knowledge about college, their family, and background information. The last section (6 items) asked about their participation in GEAR UP; students were instructed to leave this section blank since no activities had been conducted to date for this group of incoming seventh graders.

Methods

This study was drawn from the data gathered for the Fairmont and WVDE GEAR UP grants during the 2000-2001 school year. Nonparametric techniques were utilized using the demographic classification of rurality (rural versus nonrural) as an independent variable. The Mann-Whitney test was employed for ordinal-level surveys items; the chi-square test of independence for the nominal-level survey items. Appropriate measures of association were also utilized (Spearman rho correlation for ordinal-level items and Cramer's V and Lambda for nominal-level items).

Data Sources

The two student surveys described above were utilized to gather baseline data from seventh-graders in the 54 middle and junior high schools within the nine-county Fairmont area (29 schools) and the eight-county WVDE area (25 schools) during the 2000-2001 school year. Out of an estimated population of 4,500 seventh-graders for the 54 middle/junior high schools, a total of 3,716 students completed both surveys, for an approximate return rate of 83%. Of these, 1,218 were classified as nonrural (33%) and 2,498 as rural (67%). See Table 3 for a summary of the number of completed surveys by county.

Table 3: Number of Respondents by County

Fairmont State College GEAR UP Grant		WV Department of Education GEAR UP Grant	
County	Student Surveys	County	Student Surveys
Barbour	174	Clay	103
Doddridge	93	Hampshire	231
Harrison	542	Lincoln	308
Marion	328	Mason	221
Monongalia	209	McDowell	135
Preston	335	Monroe	246
Randolph	253	Pocahontas	106
Taylor	169	Roane	175
Tucker	88		
TOTAL	2,191	TOTAL	1,525

FINDINGS

AEL/FSC Student Survey

Mann-Whitney analyses resulted in statistically significant differences (at the .05 level) between the nonrural and rural students' responses for two survey items and three of the eight aspirations subscales for the AEL/FSC student survey (mean responses on the subscales were grouped into five categories of Strongly Disagree to Strongly Agree for this analysis). Spearman correlations between survey items and rurality were less than .10, indicating minimal correlation even though all were significant. In sum, rural students were more likely to have more brothers or sisters and were more likely to agree they would not be able to afford their education after high school, while nonrural students had higher levels of agreement in the areas of belonging, heroes, and curiosity. See Table 4 for a statistical summary of these findings.

Chi-square tests of independence resulted in statistically significant differences (at the .05 level) between the nonrural and rural students' responses for 11 survey items (some with multiple subitems) for the AEL/FSC student survey. Cramer V and Lambda values between survey items and rurality were all less than .15, indicating minimal association. In sum, rural students were more likely to agree that they needed help with their classes, that they planned to take algebra or trigonometry, that they participated in sports, and that they would be interested in an afterschool tutoring program. Nonrural students were more likely to agree that they were doing well in specific subjects, that they had good study skills, and that they participated in clubs. See Table 5 for a statistical summary of these findings.

Caution should be used when interpreting these significant findings between rural and nonrural students' responses. Given the large sample size and the low associative values, it may be that most if not all of the statistical significance is due to statistical power. If this is indeed the case, these differences would have no practical meaningfulness for subsequent interpretations. To provide the reader with a better understanding of how small these actual differences are, Table 6 provides response percentages by rurality for the statistically significant items on the AEL/FSC student survey. Those items which have more than a 5% difference between responses are highlighted in bold. To further clarify these differences, Figure 1 shows individual bar graphs for each of the items with more than a 5% difference between rural and nonrural responses.

Table 4: Statistically Significant Ordinal Items on the AEL/FSC Student Survey

Item Number and Description	Number Cases*	Mean Ranking	Mann-Whitney U	Signifi-cance**	Correlation with Rurality**
(1) How many ___ do you have?					
a. Brothers	N: 1159 R: 2354	1702 1784	1299816	.016	.041
b. Sisters	N: 1176 R: 2374	1712 1807	1321477	.006	.046
(35) I won't be able to afford to continue my education after high school.	N: 1173 R: 2431	1729 1838	1339431	.002	.051
Belonging Subscale	N: 1212 R: 2482	1935 1805	1398115	.001	-.060
Heroes Subscale	N: 1212 R: 2483	1895 1825	1447285	.043	-.033
Curiosity Subscale	N: 1211 R: 2479	1903 1817	1431469	.015	-.040

*N = Nonrural; R = Rural

**$p < .05$

Table 5: Statistically Significant Nominal Items on the AEL/FSC Student Survey

Item Number and Description	Number Cases	Chi-Square	Degrees Freedom	Significance*	Cramer V*	Lambda
(5) I am doing well in math.	3491	32.071	2	.000	.096	.000
(6) I am doing well in English.	3442	59.295	2	.000	.131	.000
(7) I am doing well in science.	3442	62.514	2	.000	.135	.000
(8) I am doing well in history.	3407	20.695	2	.000	.078	.000
(9) I need help with some of my classes.	3460	7.024	1	.008	.045	.019
(10) What is your favorite class in school?	3624	36.701	5	.000	.101	.000
(13) Which of the following courses do you plan on taking in high school?						
(a) Algebra	3715	10.558	1	.001	.053	.000
(f) Trigonometry	3715	4.524	1	.033	.035	.000
(14) I think I have good study skills.	3669	4.630	1	.031	.036	.000
(15) I would be interested in attending an afterschool tutoring or helping program, if one was offered.	3651	12.085	1	.001	.058	.000
(17) In school, I participate in sports.	3670	21.463	1	.000	.076	.000
(18) In school, I participate in clubs.	3651	50.173	1	.000	.117	.000

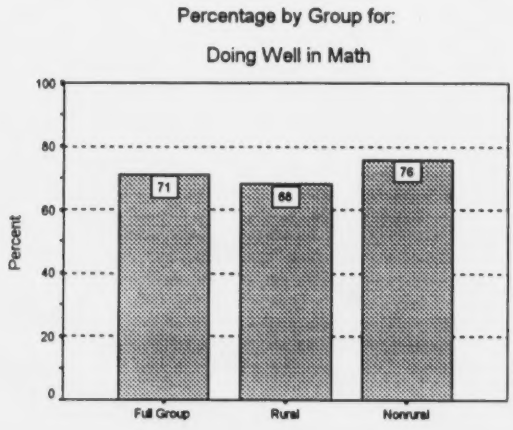
*$p < .05$

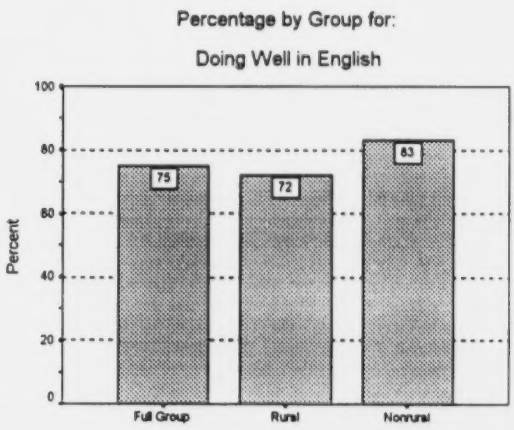
Table 6: Response Percentages by Rurality for Significant Items on the AEL/FSC Student Survey

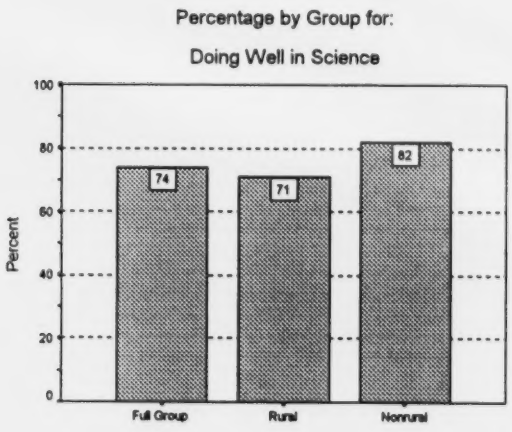
Item	Rural	Nonrural
I am doing well in a subject.		
Percent responding Yes to Math	**68%**	**76%**
Percent responding Yes to English	**72%**	**83%**
Percent responding Yes to Science	**71%**	**82%**
Percent responding Yes to History	**70%**	**78%**
I need help with some of my classes.		
Percent responding Yes	51%	46%
What is your favorite class in school?		
Percent responding Gym/Physical Education	**38%**	**32%**
Percent responding Science	**13%**	**19%**
Which courses do you plan on taking in high school?		
Percent responding Yes to Algebra	**56%**	**50%**
Percent responding Yes to Trigonometry	25%	22%
I think I have good study skills.		
Percent responding Yes	73%	77%
I would be interested in attending an afterschool tutoring or helping program, if one was offered.		
Percent responding Yes	**40%**	**34%**
In school, I participate in sports.		
Percent responding Yes	**65%**	**57%**
In school, I participate in clubs.		
Percent responding Yes	**36%**	**49%**
I won't be able to afford to continue my education after high school.		
Percent responding Yes	15%	12%
Belonging Subscale		
Percent responding Agree or Strongly Agree	36%	38%
Heroes Subscale		
Percent responding Agree or Strongly Agree	44%	49%
Curiosity Subscale		
Percent responding Agree or Strongly Agree	40%	44%

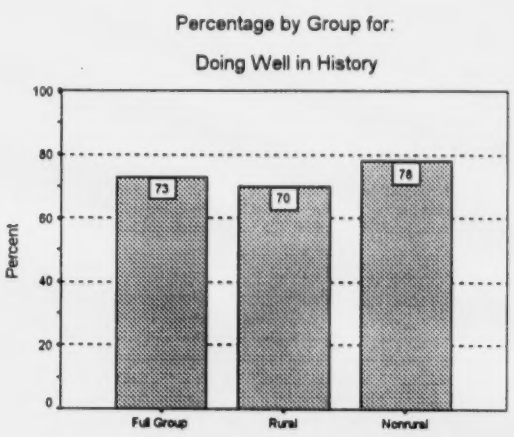
Note: Response percentages in **bold** indicate more than a 5% difference between rural and nonrural responses.

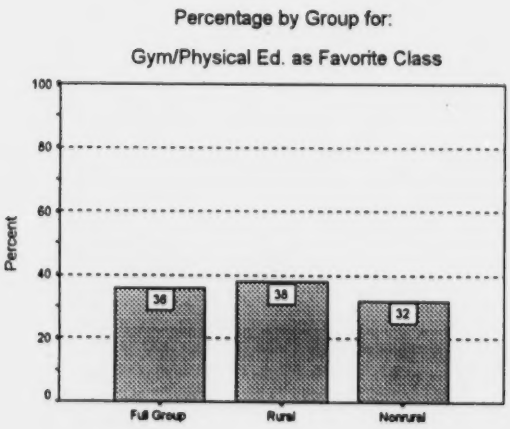
Figure 1: Bar Graphs for Those Significantly Different Items on the AEL/FSC Student Survey With More than Five Percent Difference Between Rural and Nonrural Responses

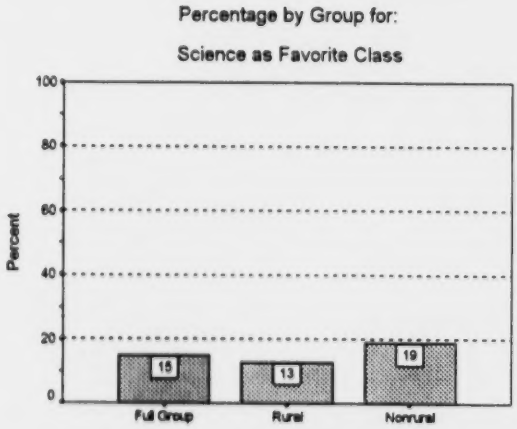






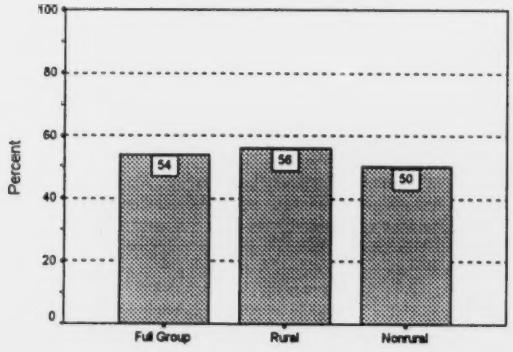






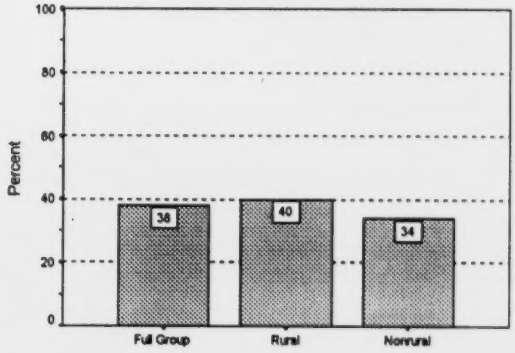
Percentage by Group for:

Planning to Take Algebra



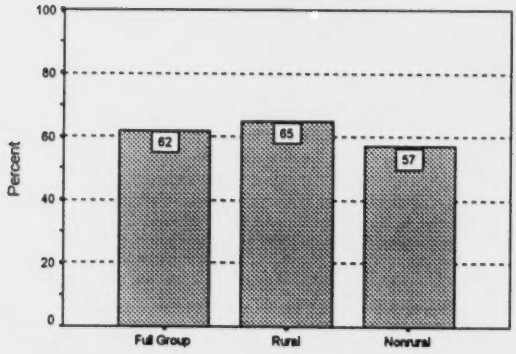
Percentage by Group for:

Interested in After-School Tutoring



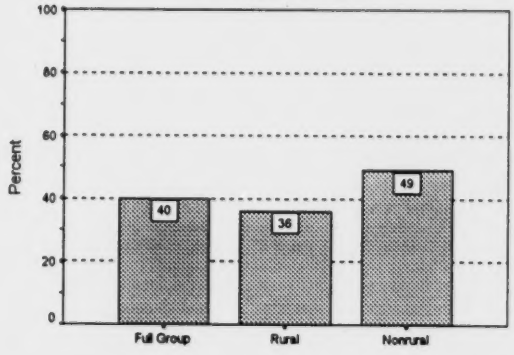
Percentage by Group for:

Participation in Sports



Percentage by Group for:

Participation in Clubs



Federal Student Survey

Mann-Whitney analyses resulted in statistically significant differences (at the .05 level) between the nonrural and rural students' responses for four survey items (some with multiple subitems) for the federal student survey. Spearman correlations between survey items and rurality were less than .10, indicating minimal correlation even though all were significant. In sum, nonrural students had more positive impressions of how hard they worked in school and what type of student they were, were more inclined to value opinions about their education from a guidance counselor or religious leader, and believed their parents wanted them to obtain a higher education level. See Table 7 for a statistical summary of these findings.

Chi-square tests of independence resulted in statistically significant differences (at the .05 level) between the nonrural and rural students' responses for six survey items (some with multiple subitems) for the federal student survey. Cramer V and Lambda values between survey items and rurality were all less than .15, indicating minimal association. In sum, rural students were more likely to receive homework help from a friend, to have talked with someone about college entrance requirements, to have heard of specific types of postsecondary schools, to agree they get educational information from a guidance counselor or principal, and to describe themselves as white. Nonrural students were more likely to receive homework help from a parent and to indicate that other family members had attended college. See Table 8 for a statistical summary of these findings.

Caution should be used when interpreting these significant findings between rural and nonrural students' responses. Given the large sample size and the low associative values, it may be that most if not all of the statistical significance is due to statistical power. If this is indeed the case, these differences would have no practical meaningfulness for subsequent interpretations. To provide the reader with a better understanding of how small these actual differences are, Table 9 provides response percentages by rurality for the statistically significant items on the federal student survey. Those items which have more than a 5% difference between responses are highlighted in bold. To further clarify these differences, Figure 2 shows individual bar graphs for each of the items with more than a 5% difference between rural and nonrural responses.

Table 7: Statistically Significant Ordinal Items on the Federal Student Survey

Item Number and Description	Number Cases*	Mean Ranking	Mann-Whitney U	Signifi-cance**	Correlation with Rurality**
(2) Compared with other students, how hard do you think you work in school?	N: 1204 R: 2478	1888 1819	1435207	.041	-.034
(3) What type of student do you consider yourself to be?	N: 1208 R: 2482	1900 1819	1432933	.013	-.041
(4) How important to you is what _____ thinks you should do about your education?					
c. Guidance counselor	N: 1137 R: 2383	1816 1734	1291937	.017	-.040
e. Religious leader	N: 1117 R: 2332	1776 1700	1245010	.026	-.038
(18) How much education do you think your _____ wants you to get?					
a. Father	N: 1056 R: 1951	1570 1468	960486	.001	-.059
b. Mother	N: 1084 R: 1974	1590 1496	1003794	.002	-.056

*N = Nonrural; R = Rural

**$p < .05$

Table 8: Statistically Significant Nominal Items on the Federal Student Survey

Item Number and Description	Number Cases	Chi-Square	Degrees Freedom	Significance*	Cramer V*	Lambda
(1) Who usually helps you with your homework?						
d. Parent	3545	5.819	1	.016	.041	.000
g. Classmate/friend	3034	13.729	1	.000	.067	.000
(5) Have you talked with your school counselor or someone else at your school about the entrance requirements for college?	3692	14.773	1	.000	.063	.000
(7) Have you heard of the following types of post-secondary schools?						
a. Two-year college	3505	34.542	1	.000	.099	.000
b. Four-year college	3588	23.675	1	.000	.081	.000
c. Vocational/business	3474	5.874	1	.015	.041	.000
(12) From whom do you get most of your information about your options for continuing your education after high school?						
c. Guidance counselor	3249	5.822	1	.016	.042	.000
e. Principal	3274	13.958	1	.000	.065	.000
(17) Did any of your family members attend or get a college degree?						
a. Mother	3487	25.372	2	.000	.085	.000
b. Father	3343	36.657	2	.000	.105	.000
d. Grandparent	3317	23.969	2	.000	.085	.000
(21) How do you describe yourself?	3608	24.368	6	.000	.082	.000

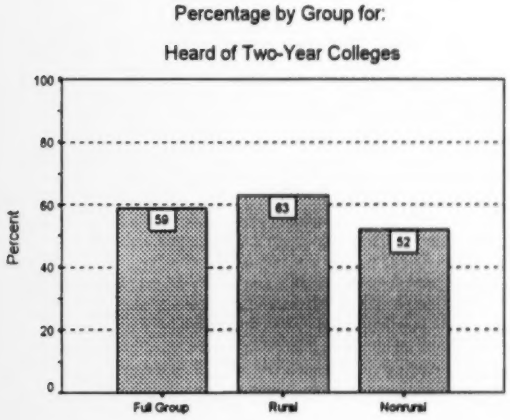
*$p < .05$

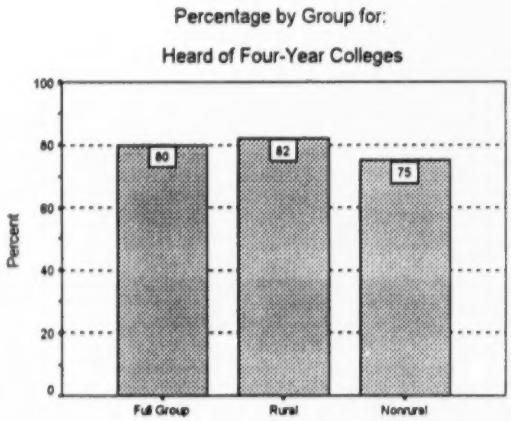
Table 9: Response Percentages by Rurality for Significant Items on the Federal Student Survey

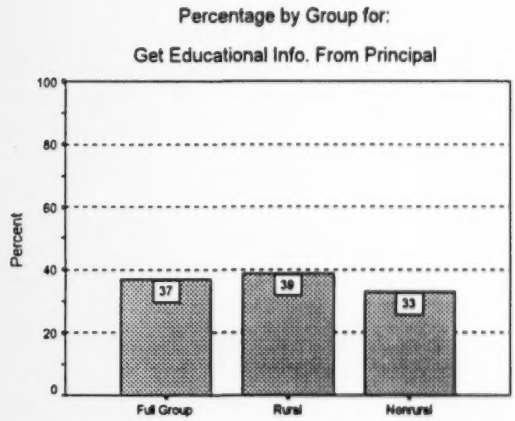
Item	Rural	Nonrural
Who usually helps you with your homework?		
Percent responding Yes to Parent	91%	94%
Percent responding Yes to Classmate/Friend	**65%**	**58%**
Compared with other students, how hard do you think you work in school?		
Percent responding Harder or Much Harder	34%	37%
What type of student do you consider yourself to be?		
Percent responding Good or Excellent	78%	82%
How important to you is what each of the following think you should do about your education?		
Percent responding Very Important to Guidance Coun.	30%	34%
Percent responding Very Important to Religious Leader	31%	33%
Have you talked with your school counselor or someone else at your school about the entrance requirements for college?		
Percent responding Yes	21%	16%
Have you heard of the following types of postsecondary schools?		
Percent responding Yes to Two-Year College	**63%**	**52%**
Percent responding Yes to Four-Year College	**82%**	**75%**
Percent responding Yes to Vocational/Business College	61%	56%
From whom do you get most of your information about your options for continuing your education after high school?		
Percent responding Yes to Guidance Counselor	29%	25%
Percent responding Yes to Principal	**39%**	**33%**
Did any of your family members attend or get a college degree?		
Percent responding Yes to Mother	32%	37%
Percent responding Yes to Father	**22%**	**29%**
Percent responding Yes to Grandparent	21%	25%
How much education do you think your parents want you to get?		
Percent responding Bachelors/Graduate Degree to Father	63%	68%
Percent responding Bachelors/Graduate Degree to Mother	69%	74%
How do you describe yourself?		
Percent responding White	90%	85%

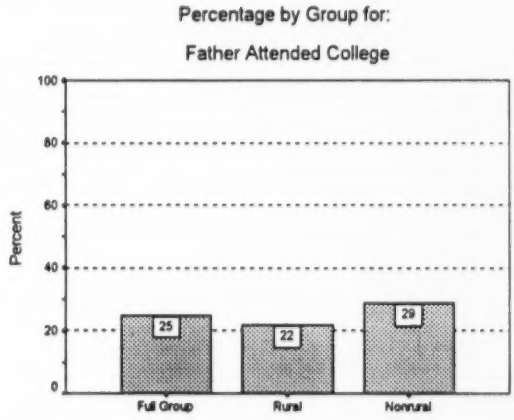
Note: Response percentages in **bold** indicate more than a 5% difference between rural and nonrural responses.

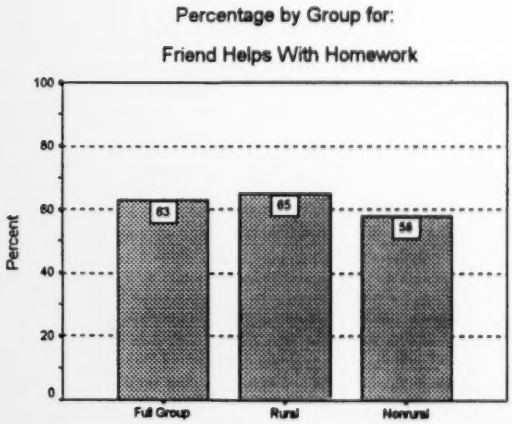
Figure 2: Bar Graphs for Those Significantly Different Items on the Federal Student Survey With More than Five Percent Difference Between Rural and Nonrural Responses











CONCLUSIONS AND DISCUSSION

Analysis and interpretation of the findings from this GEAR UP student data leads to a number of discussion points and conclusions. Table 10 provides an overall summary of the significant findings discussed earlier for rural and nonrural students. Findings are grouped by those items with more than a 5% difference between responses and those with 5% or less. Conclusions are then presented by topical themes.

Table 10: Overall Summary of Significant Findings by Rurality

More *nonrural* students report:	More *rural* students report:
<u>More than 5% difference in responses:</u>	<u>More than 5% difference in responses:</u>
- doing well in math	- gym/physical ed. is their favorite class
- doing well in English	- planning to take algebra in high school
- doing well in science	- they are interested in afterschool tutoring
- doing well in history	- participating in sports
- science is their favorite class	- a friend helps with homework
- participating in clubs	- having heard of two-year colleges
- their father attended college	- having heard of four-year colleges
	- getting education information from a principal
<u>5% or less difference in responses:</u>	<u>5% or less difference in responses:</u>
- having good study skills	- needing help with some classes
- agreeing with belonging subscale	- planning to take trigonometry in high school
- agreeing with heroes subscale	- they can't afford to continue their education
- agreeing with curiosity subscale	- having discussed college entrance requirements
- a parent helps with homework	- having heard of vocational/business colleges
- working harder/much harder than others	- getting ed. info. from a guidance counselor
- they are a good or excellent student	- describing themselves as white
- a guidance counselor opinion is important	
- a religious leader opinion is important	
- their mother attended college	
- a grandparent attended college	
- father wants them to get a bach./grad. degree	
- mother wants them to get a bach./grad. degree	

Demographics

Families of nonrural students seem to have a greater propensity toward and history of postsecondary education, since more nonrural students reported that their father, mother, or a grandparent had either attended or graduated from college. This conclusion parallels current societal trends and findings from the field of research on this topic.

Nonrural students reported more participation in clubs, while rural students reported more participation in sports. While these responses may truly reflect their individual preferences, this finding may also be due to other factors. For example, rural schools traditionally have fewer students than their more urban counterparts, which might lessen competition for being selected for a particular athletic team such as football or basketball. Following this reasoning, it might be assumed that more urban schools offer more extracurricular opportunities such as nonacademic clubs, which might give nonrural students better access to these activities.

Finally, more of the rural students described themselves as white. This conclusion parallels demographic profiles that show more minority representation in the more urban areas of West Virginia.

Aspirations

Of the eight subscales related to student aspirations, nonrural students were more in agreement with belonging, heroes, and curiosity and creativity. As described earlier, belonging describes a relationship between two or more individuals characterized by a sense of connection, support, and community; heroes describe people whom children admire and imitate because of their personal talents; and curiosity and creativity are described as inquisitiveness, eagerness, a strong desire to learn new or interesting things, and a desire to satisfy the mind with new discoveries. Belonging and curiosity were rated among the lowest three subscales, indicating generally less satisfaction for both groups of students in these areas.

Given these findings, it would seem that nonrural students feel more connected with and supported by the school environment and that there are more role models for them to emulate within the school setting. This may simply be due to a larger teaching staff in the more nonrural schools, which would offer more opportunities for "connecting" with an individual or individuals to foster a sense of belonging and to identify role models. Regarding the area of curiosity, again with more agreement by nonrural students, one possible interpretation is that less rural schools may be more willing or able to implement more instructional strategies designed to foster student investigation and exploration. It may be that rural schools are more traditional and structured in terms of instructional techniques and practices, or that they do not have the funding for these initiatives. Another interpretation is that the environment of the less rural schools may foster more opportunities for students' curiosity to be stimulated.

Academics

A number of conclusions are related to students' academic accomplishments and attitudes. Nonrural students seemed most confident that they were doing well in math, science, history, and English. This was corroborated by their indication that science was their favorite class.

In general, nonrural students seem to have more confidence about their academic abilities, with a higher percentage indicating they have good study skills, that they work harder or much harder than other students, and that they consider themselves to be good or excellent students. Rural students, on the other hand, seem to be less positive of their academic standing, with a higher percentage indicating that they need help with some of their classes and that they are interested in participating in an afterschool tutoring program.

Parent involvement seems to play a role in students' academic standing, as well. Nonrural students more often indicated that a parent helps them with their homework, while rural students more often indicated that a classmate or friend helps them. This difference may be due to a lack of willingness or ability on the part of the more rural parents to undertake this responsibility, or it could be that the more rural parents have less time to spend on this activity if longer commuting is required for employment. Another explanation may be that nonrural parents are more encouraged to help their children or that they have more programs available to them that facilitate parental involvement and assistance in the education of their children.

Finally, rural students were more likely to get information related to postsecondary education from a principal or guidance counselor. This intuitively makes sense, if the assumption that rural schools have fewer students is correct, since these education officials would be more well known to the students. Interestingly, though, a higher percentage of the nonrural students indicated that the educational opinions of a guidance counselor or religious leader were very important to them. This contradiction in findings seems worthy of tracking by GEAR UP staff in future years.

College Preparation

The findings related to college awareness and preparation are thought-provoking, to say the least. The first conclusion parallels previously-established expectations, i.e., more nonrural students reported that both parents want them to obtain either a bachelors or graduate degree. This aligns with the previous conclusion that college was more of an expected way of life for the nonrural students.

It is very intriguing that more rural students indicated that they had discussed college entrance requirements; were planning to take algebra and trigonometry in high school; and were aware of various types of postsecondary offerings such as two-year, four-year, and vocational/business colleges. However, these rural students were also more likely to believe that they would not be able to afford to continue their education after high school.

Based on the above, it would appear that rural students seem to be making plans for postsecondary education, i.e., getting information on requirements, planning to take academically-challenging courses, and learning about postsecondary options, yet there doesn't seem to be sufficient follow through on these ambitions. Perhaps somewhere along the way rural students begin to view these academic plans as unrealistic and discard them, perhaps family and/or community expectations are lower than students' original expectations and therefore negatively affect their plans, or perhaps students are not fully grasping academic concepts needed for a successful transition to postsecondary settings. Another possibility may be that rural students do not have enough information about the various options for financing postsecondary education, and as time draws closer to finalize plans, assume that college is simply not an option for them. Regardless of which, if any, conclusion is correct, there are implications for GEAR UP staff to consider in planning and implementing program activities for these seventh graders in subsequent years in the program.

Educational Significance

The academic interests and aspirations of a large group of West Virginia seventh graders have been compared looking through a lens of rurality established by the NCES Johnson codes. While much research has been conducted to date comparing differences and similarities of rural and urban youth, this study adds more depth to the picture by comparing rural versus less rural youth. Study findings confirm some previous research and assumptions, yet also identify several unexpected contradictions to current thinking in terms of rurality and its effect on youth.

In addition to adding to the field of research about ruralness and student aspirations, this study also provides valuable information to GEAR UP staff as they implement and evaluate their program activities. Many of the districts within the Fairmont and WVDE GEAR UP grant regions contain a mix of rural and nonrural schools. Knowledge about students' academic perceptions, intentions, and aspirations could help target specific schools for more intensive and/or focused interventions.

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